EuroFIR
European Food Information Resource

Istituto Nazionale di Ricerca per gli Alimenti e la Nutrizione

# Use of the EuroFIR eSearch applying different criteria: some suggestions to improve its usability


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## Background

The EuroFIR eSearch is an innovative online interface developed in the framework of the EuroFIR project, which allows the simultaneous search of more than 26 food composition databases (FCDBs) from different countries.
The number of validated and documented FCDBs represents a unique informative basis. Moreover, foods are indexed through a standardized food description (LanguaL), which allows standardization in retrieving and comparing similar foods from different FCDBs. This rich of content, multilingual system is accessible through a step-by-step procedure which makes it user-friendly also to non-expert users.

## Objective

The aim of this work is to stress some aspects in order to enhance the informative power of the eSearch tool, and to highlight some points that could be used in implementing the advanced search.

## Methods

Searches performed with simple search criteria, in the perspective of a non-expert user. Analysis of the eSearch results food lists in order to highlight different situations that can occur in information retrieval (regularities, redundancy, possible problems in the visualization of the data).

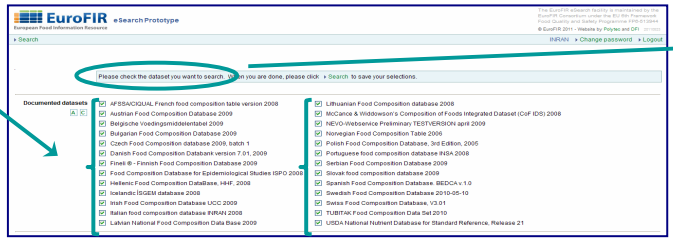
## Results

**Analytical or bibliographic data?**
**It would be useful to add this information to each documented database**

**WHY IT IS IMPORTANT**

Analytical data → Updating → More reliable estimates

**Pay attention to redundant data**




**A more visible warning to select one or more databases before starting the research would be useful for the user**

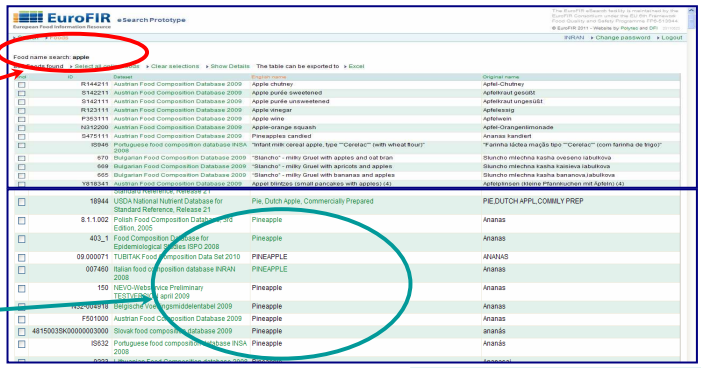
**The naming of databases could be uniformed (es: Country, institution, release, year) in order to facilitate the selection**

**ALL WORDS versus EXACT STRING search option: suggestions to manage redundancy and restrictions of the output**

### ADVANTAGES

-Richness of the output: ALL WORDS search option retrieves all the foods names containing the searched string
-The result is very little influenced by the different descriptions a single food may have

- EXACT STRING option returns a very refined reseach

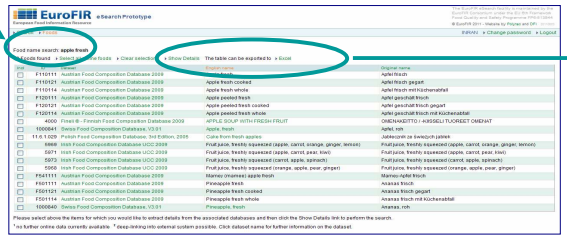



### DISADVANTAGES

**Redundancy: not requested names are always retrieved with ALL WORDS option**

**The use of ALL WORDS option is not very useful for refined searches, it is better to avoid the use of plural words or to add adjectives because this may cause too restrictive outputs and missing information. E.g.: searching "APPLE FRESH", APPLE is no longer retrieved**

**The use of EXACT STRING option always returns a limited output as long as food definitions are not standardised. E.g.: searching "APPLE FRESH", FRESH APPLE is no longer retrieved**

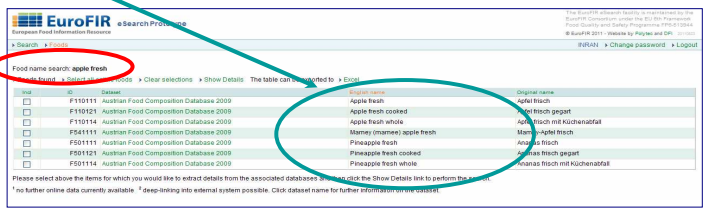


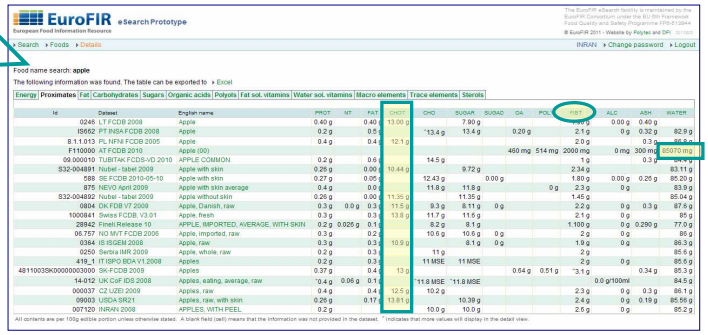

**Export to MS Excel: the user should be advised to check that the data format on the results screen is the same as the Excel file**

**Nutrient data are expressed in different units**

**Carbohydrates:**

- **are they calculated by difference?**
- **what do the data in the column include? Starch+Sugars+Fibre? Starch+Sugars?**
- **are they expressed as monosaccharides?**
- **is starch expressed as polisaccharides?**




### SUGGESTIONS

**ALL WORDS search option is more suitable in researches on simple strings, i.e. one-word food names**

**EXACT STRING is advisable for refined researches using two or more words, performed by expert users aware of the different descriptions the same food may have from one database to another**

**Nutrient data should be expressed in the same units**

**For the further development of the ADVANCED SEARCH:**

- **guidelines for interpreting the data and acronyms (i.e. in comparing foods among different countries)**
- **tags for new analytical data**
- **new data sources**


**References**

S. Bell, A. Fragodt, P. Colombani, M. Raats, S.Church. eSearch Facility Usability Testing. Results – Cycle 1, Compiler Network Meeting, May 7th, 2009, Florence

P. Finglas, S. Bell, G. Chryssochoidis, M. Kiely. WP3 Integration and Business Development. EuroFIR Nexus Kick Off Meeting, Crowne Plaza Hotel, Heidelberg, Germany, 4th – 6th April 2011

A. Moller. 2010. Using the EuroFIR eSearch Prototype - version 1.2 - 2010-02-15


## Conclusions

The eSearch is a high informative tool. Simple visual and graphic improvements to the search screen, as well as to the results screen, that address the above mentioned points will make the tool even more friendly to a wider spectrum of users and stakeholders.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